[Document type] Drawing

[Figure 1]   (1/6)

PROGRAM TO
BE COMPILED

10

COMPILER
APPARATUS

EXCEPTION
HANDLER
DETECTION   ~100

EXCEPTION
SELECTION   ~110

EXCEPTION
HANDLER
THROW   ~120

COMPILED PROGRAM

[Figure 2]

```
           ( START )
               |
               v
   +---------------------------+
   | DETECT MULTIPLE-CATCHING  |---- S200
   | EXCEPTION HANDLER         |
   +---------------------------+
               |
               v
   +---------------------------+
   | SELECT SET OF EXCEPTIONS  |---- S210
   +---------------------------+
               |
               v
   +---------------------------+
   | THROW CLONE               |---- S220
   | EXCEPTION HANDLER         |
   +---------------------------+
               |
               v
   +---------------------------+
   | THROW BRANCH              |---- S230
   | INSTRUCTION               |
   +---------------------------+
               |
               v
           (  END  )
```
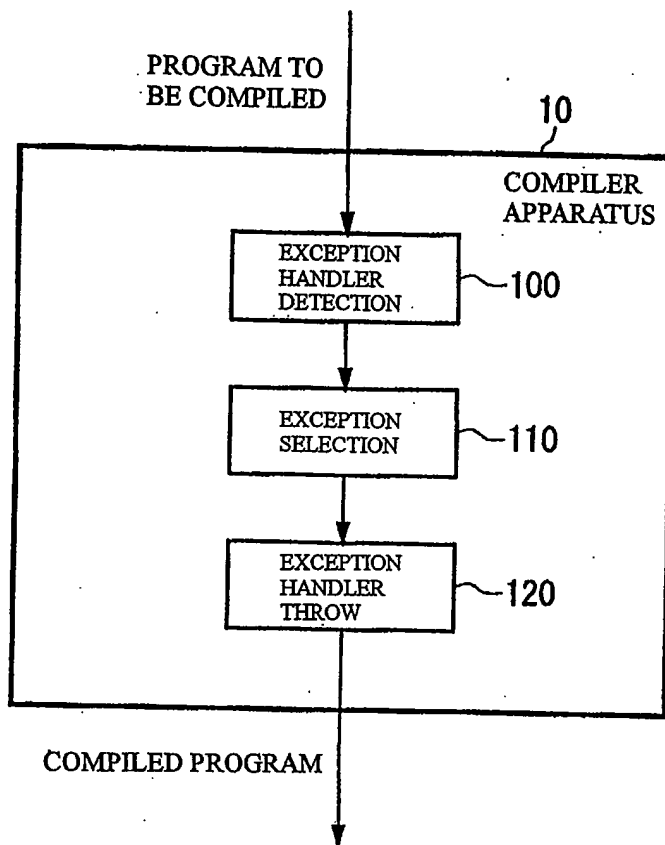
[Figure 3]   (3/6)
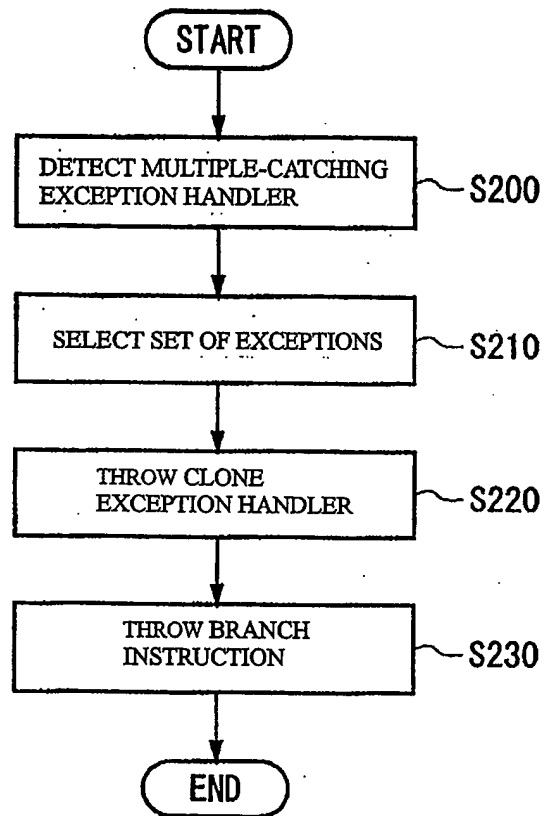
```
1:try {
2:   try {

              :
              :

3:           L1= EXCEPTION 1
4:           throw L1

              :
              :

5:           L2= EXCEPTION 2
6:           throw L2

              :
              :

7:           L3= EXCEPTION 3
8:           throw L3

              :
              :

9:      } finally {

              :
              :

10:          L4= CAUGHT EXCEPTION
11:          throw L4

              :
              :

12:      }
13:} catch (EXCEPTION 1,            {           }
             EXCEPTION 2)
```
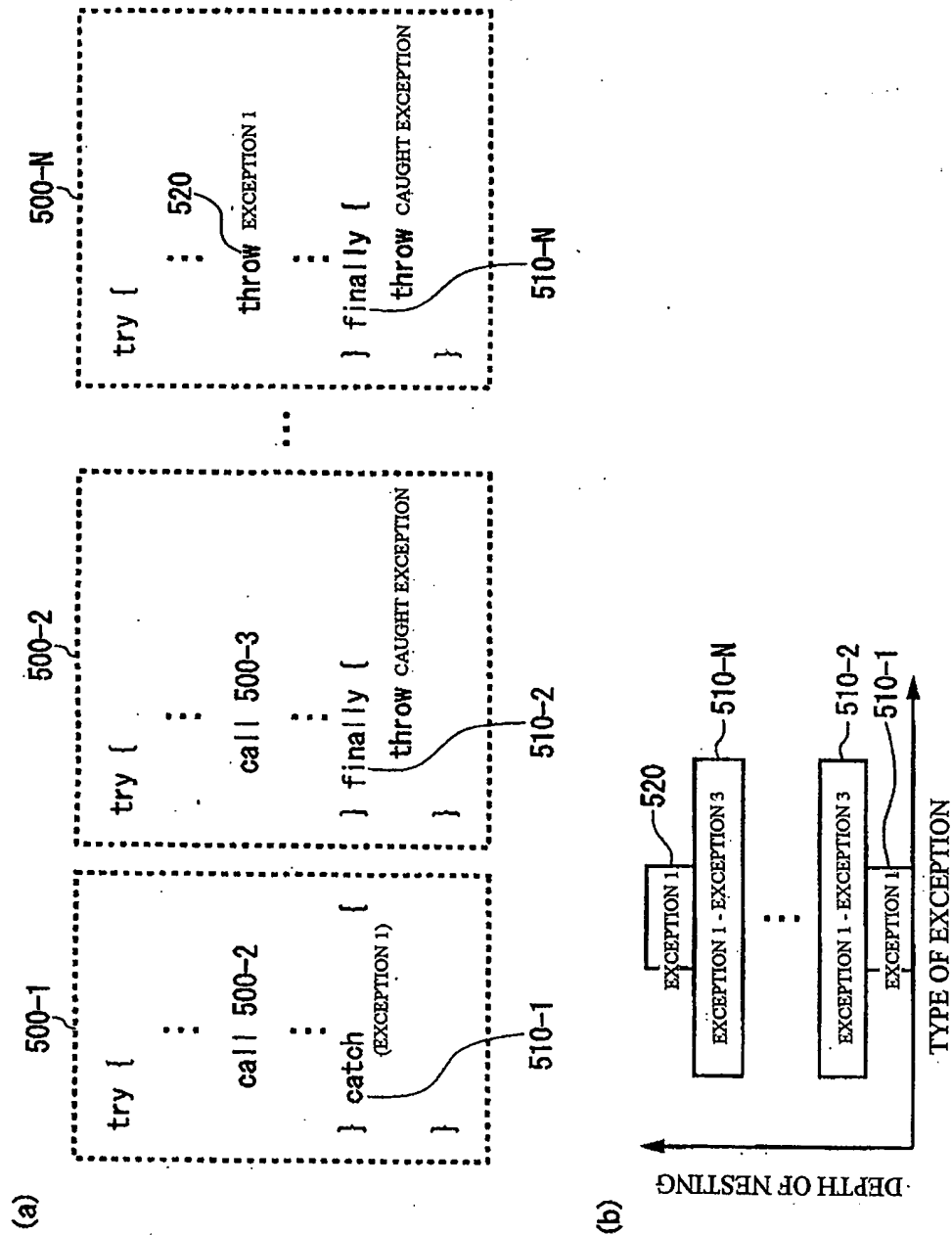
```
1:try {
2:    try {

              ⋮

3:            L1= EXCEPTION 1
4:            throw L1

              ⋮

5:            L2= EXCEPTION 2
6:            throw L2

              ⋮

7:            L3= EXCEPTION 3
8:            throw L3

              ⋮

9:        } catch (EXCEPTION 1,                {
                   EXCEPTION 2)

              ⋮

10:    BRANCH INSTRUCTION FOR BRANCHING TO THE LINE 13
11:        } catch (EXCEPTION 3) {

              ⋮

12:        }
13:} catch (EXCEPTION 1,            {            }
          EXCEPTION 2)
```

[Figure 5]

(a)

500-1

```
try {
    ...
    call 500-2
    ...
} catch (EXCEPTION 1) {
}
```
510-1

500-2

```
try {
    ...
    call 500-3
    ...
} finally {
    throw CAUGHT EXCEPTION
}
```
510-2

500-N

```
try {
    ...
    520
    throw EXCEPTION 1
    ...
} finally {
    throw CAUGHT EXCEPTION
}
```
510-N

(b)

DEPTH OF NESTING

TYPE OF EXCEPTION

520 EXCEPTION 1

510-N EXCEPTION 1 - EXCEPTION 3

510-2 EXCEPTION 1 - EXCEPTION 3

510-1 EXCEPTION 1

[Figure 6]   (6/6)

1095

1090

10

1040 HARD DISK DRIVE

1060 CD-ROM DRIVE

1050 FD DRIVE

1020 RAM

1010 ROM

1000

CPU

1082 HOST CONTROLLER

1084 I/O CONTROLLER

1070 I/O CHIP

1075 GRAPHIC CONTROLLER

1030 COMMUNI-CATION INTERFACE

1080 DISPLAY DEVICE

NETWORK